SAFELY STORE VY
CONTINUE THE LEGACY

Nuclear Decommissioning Citizens Advisory Panel (NDCAP)

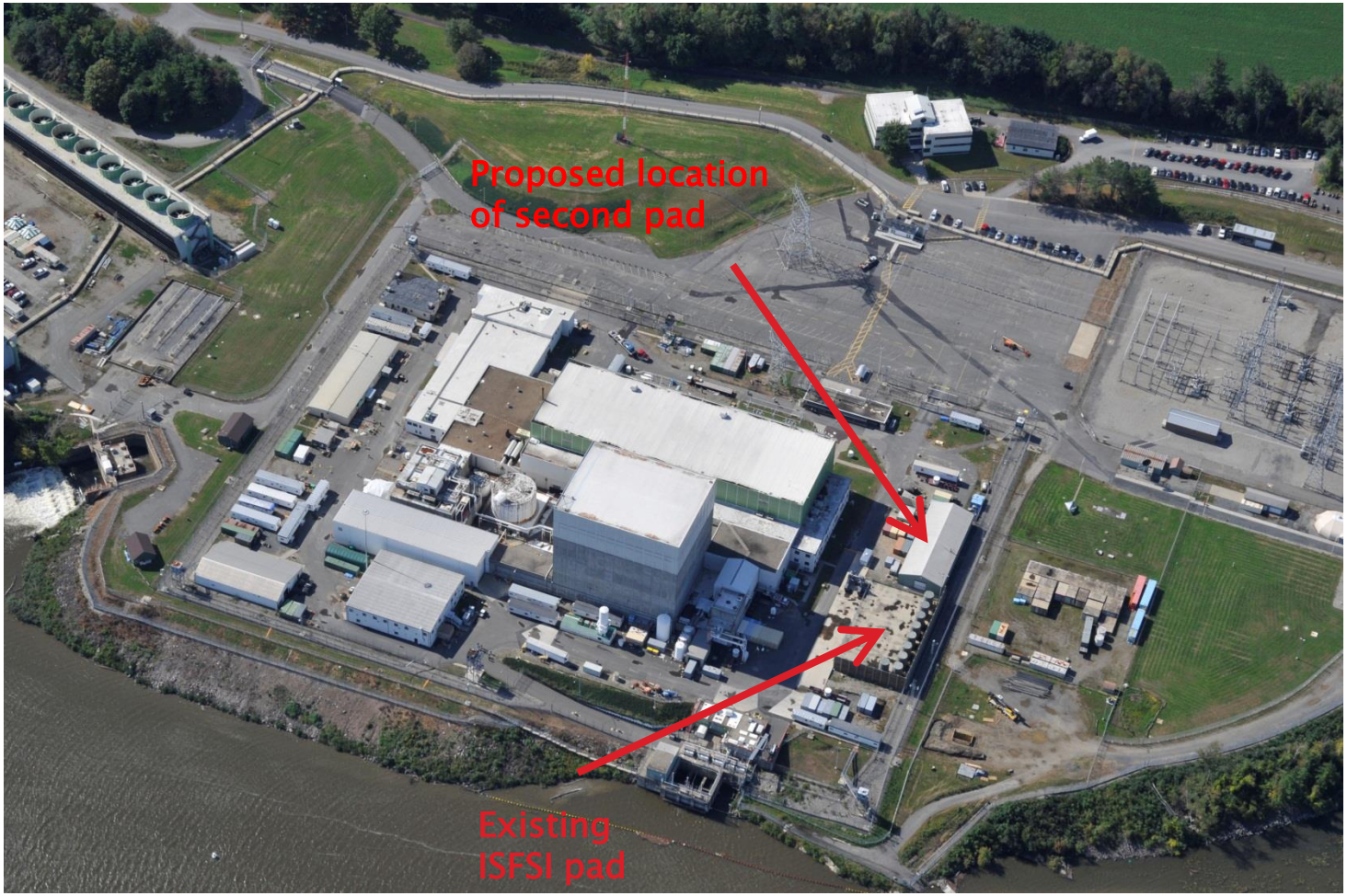
Certificate of Public Good (CPG) – Second ISFSI Pad & New 200 kW DG

May 28, 2015

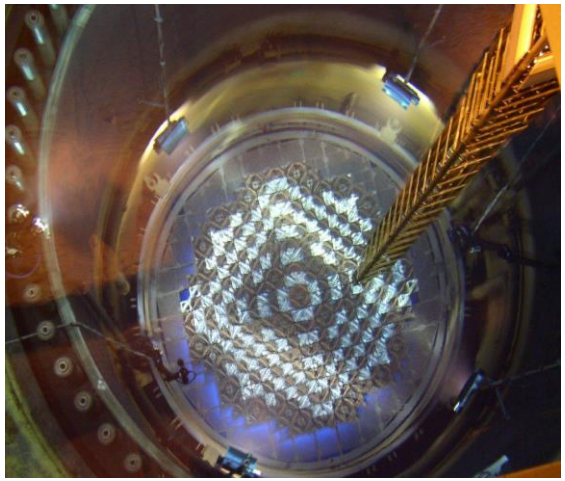
Current Dry Fuel Storage Status

- Thirteen (13) Holtec 100 Dry Fuel Storage Casks are safely loaded and stored on the first of two (2) Independent Spent Fuel Storage Installation (ISFSI) pads.
- An additional forty-five (45) Dry Fuel Storage Casks for a total of fifty-eight (58) will be loaded and stored on the two pads.
- Capacity of the existing pad is thirty-six (36) Dry Fuel Storage Casks.
- Application for a second ISFSI pad was submitted on June 30, 2014 to the Vermont Public Service Board (PSB) seeking a Certificate of Public Good (CPG).
- The required capacity of the new pad is twenty-two (22) casks.
- Current plan is to transfer all spent fuel to Dry Cask Storage by 2020.

Independent Spent Fuel Storage Installation (ISFSI)



VY Spent Fuel Management Overview



- The Spent Fuel Pool currently stores 2,996 spent fuel assemblies at VYNPS to be moved to Dry Cask Storage.
- The thirteen (13) Dry Cask Storage Casks contain 884 spent fuel assemblies.
- A total of 3,880* spent fuel assemblies are stored at VYNPS.

* This includes one (1) fuel debris canister

Current Construction and Project Schedule

- CPG Issued by PSB – Requested by Early May 2016
- Commence Field Construction – June 15, 2016
- Concrete Pour – October 2, 2017
- 2nd ISFSI Pad In Service – November 15, 2017
- Complete Transfer of Spent Fuel into Casks – Late 2020

Pad Design Considerations

- 5 by 5 Cask Array results in a 76’ by 93’ pad design.
- Located approximately 30’ west of the existing pad.
- Selected location provides optimum Security and pad access using existing infrastructure.
- Requires the removal of the existing North Warehouse and 175kW diesel generator as well as underground utility relocation.
- Extensive soil analyses concluded no potential seismic issues with the new pad location.
- Same Design Basis Earthquake parameters and Design Basis Flood elevations as existing approved pad were used.
- Design meets all NRC licensing requirements.

Independent Spent Fuel Storage Installation (ISFSI)

2008 File Photo

Proposed location of second pad

Dry Fuel Storage Options Evaluated

- Underground Storage (Holtec 100U)
  - Cannot be constructed in Protected Area (PA)
  - Outside of PA – Extensive Security Implications
- Above Ground Storage
  - Evaluated Multiple Configurations and Locations
- *Best Option* – 5 by 5 Cask Array on Pad Adjacent to the Existing Pad

200 kW Diesel Generator

- Existing 175 kW Diesel Generator to be replaced with 200 kW DG
- Barrier wall included in design to address NRC security requirements (10 CFR 73.55)
- Diesel Generator relocated/oriented to address NRC security requirements

Summary

- 5 by 5 cask pad design in Protected Area (PA) – Optimum for all design, and compliance issues.
- Detailed pad design is complete.
- Extensive soil analyses concluded no potential seismic issues with the new pad location.
- Supplementary testimony filed with the Public Service Board on May 11, 2015.
- Certificate of Public Good (CPG) needed by early May 2016 to support current construction and cask loading schedule.
- Construction of new pad needs to be complete by November 2017 to support all fuel in Dry Cask Storage by 2020.
- Cost of extending project beyond 2020 is estimated at $1.7M/month.